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Federal Trade Commission Hearings on Competition and Consumer

Protection in the 21st Century

Public Comments of 43 State Attorneys General

June 11, 2019

The Attorneys General of Texas, Iowa, Alaska, California, Colorado, Connecticut, Delaware, District of Columbia, Guam, Hawaii, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, and Wisconsin (the "State Attorneys General") submit the following Comments in response to the Federal Trade Commission ("FTC")'s request for public comments for its June 12, 2019 Roundtable with State Attorneys General, which is part of the FTC's public hearings on Competition and Consumer Protection in the 21st Century. In these Comments, we offer our perspective on the status and direction of antitrust enforcement with respect to four of the FTC's proposed topics:

- The identification and measurement of market power and entry barriers, and the evaluation of collusive, exclusionary, or predatory conduct or conduct that violates the consumer protection statutes enforced by the FTC, in markets featuring "platform" businesses (Topic 3);
- The intersection between privacy, big data, and competition (Topic 4);
- Evaluating the competitive effects of corporate acquisitions and mergers (Topic 6); and
- The agency's investigation, enforcement and remedial processes (Topic 11).

First, a brief overview of our Comments, which deal principally with technology platform markets, i.e., digital platforms that connect two or more distinct user groups and facilitate value creation exchanges while allowing those users to leverage network benefits. The first three sections generally provide relevant background, while the final two provide some recommendations for strengthening antitrust enforcement in the 21st century.

In the first three (background) sections, we examine the developing markets for consumer data, exploring the market value and competitive aspects of data and privacy and how today's large-scale data collection efforts create network effects and barriers to entry, which can entrench dominant firms. We then focus on several non-price aspects of competition meriting renewed antitrust attention (namely: quality, privacy, and innovation) and examine some

of the exclusionary conduct exhibited in technology platform markets, such as targeting rivals and acquisitions or foreclosure of nascent competition.

In the final two (recommendations) sections, we pose several ideas for merger enforcement in technology platform markets, starting with a recalibration of enforcement philosophy away from under-enforcement, as well as an expansion of the FTC's recent initiatives to work closely with state attorneys general (including with respect to identifying potentially problematic acquisitions that fall below HSR filing thresholds). We suggest requiring prior approval and/or prior notice for future acquisitions as part of more consent decrees in technology platform markets, encourage greater consideration of non-price effects and network effects in assessing mergers in those markets, and note that Sherman Act Section 2 can be a very strong tool for policing monopolists' acquisitions of nascent competition. Finally, we address two potential legislative approaches: one adding duration-of-existence criteria to HSR filing thresholds (to aid detection of anticompetitive acquisitions of nascent competition) and the next addressing transparency in the collection and sale of data (to facilitate an efficient and competitive market).

State attorneys general have a long legacy of enforcing and shaping federal and state antitrust policy through investigations and litigation, in both established and emerging markets. We are pleased to report that cooperation among the state attorneys general and the FTC remains robust. We look forward to continuing our collaborative enforcement efforts with the FTC into the 21st century.

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I. The market for consumer data presents new issues.

Companies that trade in data are now among the most valuable firms in the world. These companies offer different, but often related, online services to consumers, including social networks, search, maps, and messaging. These Comments discuss the issues raised by dominant platforms that collect and monetize a significant volume and variety of consumer data.

By amassing and harnessing huge collections of data, platforms have undeniably created tremendous value and convenience for consumers, which they often provide in the form of "free" services.³ But the old adage holds true here: there is no such thing as a free lunch; the fact that a consumer does not pay a platform in money does not mean the services are actually free.⁴ In a sense, data has become the internet's new currency.

Platforms' collection of consumer data creates privacy concerns touching on consumer protection. But the scale and volume of the collection of that data also raises competition concerns. Consumer data has become extremely valuable, especially when aggregated into large sets and analyzed and packaged for targeted marketing (and other uses), which is part of the reason technology platforms have quickly grown into some of the most valuable firms in the world.

A. The market value of data and privacy are important considerations.

As a growing number of consumers express unease with the amount of data collected by dominant platforms, they lack information about the value of the data they must exchange for the platforms' services.⁵ As the FTC has noted, the decisions firms make about consumer privacy can lead to a form of non-price competition, and privacy can be a non-price dimension of competition.⁶

The commercial use of consumer data is not new: data brokers have collected and sold consumer information for decades. Data brokers are entities that collect information about consumers and then sell that data (or analytic scores or classifications made based on that data) to other data brokers, companies, and/or individuals. They collect information from public records, and they collect or buy information from commercial sources, including, for example, purchase histories from retailers. Recognizing that massive collection of consumer data could threaten consumer privacy interests, the FTC has called for accountability from data brokers, including

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¹ The World's Most Valuable Resource Is No Longer Oil But Data, THE ECONOMIST (May 6, 2017), https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data.

³ Maurice E. Stucke, Should We Be Concerned About Data-Opolies?, 2 GEO. L. TECH. REV. 275, 279 (2018).

⁴ *Id.* at 280 ("Data-opolies, unlike earlier monopolies, have not exercised their power by charging consumers higher prices. But this does not mean data-opolies are harmless. ... Among these potential harms are less privacy protection; less innovation and dynamic disruption in markets in which they dominate; and political, moral, and social concerns."). ⁵ In fact, consumers may be unable to evaluate the value of the services provided, including the accuracy of search results from Google or news articles on Facebook. *See* Mark R. Patterson, *Google and Search Engine Market Power*, HARV. J.L. & TECH., July 2013, at 5 ("In many instances of search, a consumer will be seeking information in circumstances in which she will be unable to evaluate the quality of the information she receives.").

⁶ Debbie Feinstein, *The Not-So-Big News About Big Data* (June 16, 2015, 11:30 AM), https://www.ftc.gov/news-events/blogs/competition-matters/2015/06/not-so-big-news-about-big-data.

⁷ Yael Grauer, *What Are 'Data Brokers,' and Why Are They Scooping Up Information About You?*, MOTHERBOARD (Mar. 27 2018, 9:00 AM), https://motherboard.vice.com/en_us/article/bjpx3w/what-are-data-brokers-and-how-to-stop-my-private-data-collection.

⁸ *Id*.

increased transparency and consumer control,⁹ particularly because consumers cannot choose to opt out of the brokers' collection of their data.¹⁰

Consumers may appreciate marketing that is more attuned to their interests and activities, rather than seeing generic advertisements. But they lack complete information on how their data is used, sold, aggregated, or accessed by third parties. Because of that, they are unable to assess the real price of services provided by platforms that collect their data. This stands in contrast, of course, to traditional paradigms where consumers pay for firms' goods and services with money and the price is transparent.

Facebook's data policy indicates that it will share data with unidentified third-party partners. Although Facebook CEO Mark Zuckerberg has long maintained that Facebook does not sell users' data to advertisers, Facebook recently updated the fine print of its terms of service to explain that it does, in fact, monetize user data by selling services enabled by that user data to advertisers. Google's privacy policy indicates that it shares "non-personally identifiable information publicly and with [their] partners." Even Apple's privacy policy notes that it "may make certain personal information available to strategic partners."

Even if these digital platforms do not aggregate and sell consumer information like traditional data brokers, they can create a powerful incentive for third-party developers to create

[Credit reporting companies] have built their business models around the collection and dissemination of consumers' most sensitive financial information. This includes names, nicknames, dates of birth, Social Security numbers, telephone numbers, current and former addresses, account balances, and payment histories.

This data collection is not something consumers can opt out of. Credit reporting agencies collect personal information without our knowledge or explicit authorization.

If someone shops regularly at a retail chain that gets hacked, that person can opt not to shop there any longer if doing so makes them uncomfortable. They cannot, however, keep their information away from Equifax.

Examining Private Sector Data Breaches: Hearing Before the Permanent Subcomm. on Investigations of the S. Comm. on Homeland Sec. and Governmental Affairs, 116th Cong. 1-2 (2019) (opening statement of Sen. Thomas Carper, Ranking Member, S. Comm. on Homeland Sec. and Governmental Affairs), https://www.hsgac.senate.gov/imo/media/doc/Ranking%20Member%20Carper/s%20Opening%20Statement.pdf.

⁹ FED. TRADE COMM'N, DATA BROKERS: A CALL FOR TRANSPARENCY AND ACCOUNTABILITY (2014), https://www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf.

¹⁰ Senator Thomas Carper summarizes:

¹¹ Kalev Leetaru, *The Data Brokers So Powerful Even Facebook Bought Their Data - But They Got Me Wildly Wrong*, FORBES (Apr. 5, 2018), https://www.forbes.com/sites/kalevleetaru/2018/04/05/the-data-brokers-so-powerful-even-facebook-bought-their-data-but-they-got-me-wildly-wrong/#71212fb3107a.

¹² Organisation for Economic Co-operation and Development, Big Data: Bringing Competition Policy to the Digital Era: Background Note by the Secretariat, at 25 (Oct. 27, 2016), https://one.oecd.org/document/DAF/COMP(2016)14/en/pdf [hereinafter OECD Big Data Report] ("The user is given the immediate benefit of the zero-price service, but is unaware of the short or long-term costs in divulging information, as they do not know how the data will be used and by whom.").

¹³ Data Policy, FACEBOOK, https://www.facebook.com/full data use policy (last visited Mar. 5, 2019).

¹⁴ As far back as 2013, Facebook began licensing information from data brokers to allow precision advertising targeted to its users based on the activities they perform online outside of its walled garden or offline. *See* Leetaru, *supra* note 11

¹⁵ Kelvin Chan, *EU: Facebook Changes Terms to Show it Makes Money From Data*, THE ASSOCIATED PRESS, (Apr. 9, 2019), https://www.apnews.com/ee6f3737b08a427790b222255b8bcdcc.

¹⁶ Google Privacy Policy, GOOGLE, https://policies.google.com/privacy?hl=en (last visited Mar. 5, 2019).

¹⁷ Privacy Policy, APPLE, https://www.apple.com/legal/privacy/en-ww/ (last visited Mar. 5, 2019).

products on the platform by offering access to their users' data. ¹⁸ Indeed, apps developed for social media platforms are capable of collecting data from a user's profile, or even a user's friends' profiles. Apps on mobile OS platforms can include app trackers that share personal data to third-party trackers, including the user's phone number, email and exact GPS coordinates. ¹⁹ Once the third-party developer or app-tracker collects this data, the platform is ill-equipped to police its use. Even if the platforms have contracts with developers that prohibit the sale of the consumer data accessed or collected through apps on their platforms, it is unclear if the platforms could enforce those terms or even identify breaches of the contracts. ²⁰

As more third-party developers create applications for a digital platform in exchange for access to its cache of user data, and users are attracted to the platform and engage with it more frequently to the exclusion of the platform's rivals. In this way, a platform can monetize user data or use it to reinforce its market position. At one point, Facebook reportedly leveraged user data by denying access to certain third-party developers that it deemed competitive threats, while granting access to certain strategic partners, so long as the selected developers granted reciprocal access to their application data.

B. Privacy is an important aspect of competition in technology platform markets.

If data privacy is a non-price feature that is important to consumers, one would expect—in a competitive market, at least—that a platform's privacy policies would respond to consumer demand by protecting the privacy of its users' data. But there are powerful reasons to question whether this is taking place. For instance, user data is frequently monetized by the platform and sold or used for the benefit of third parties. So it is no surprise that platforms often obscure the scope of their access to user data, the purposes for which the data is used, how they ask permission for the data, the duration of the permission, and the user's ability to revoke permission. Further, due to lock-in effects and the potential for status quo bias, a dominant platform can reduce user privacy without undue risk of losing users to a rival platform.

In a traditional market, the price of data privacy would be transparent and directly tied to the value that data generates, not arbitrarily set by a tech company.²⁵ However, in data-driven markets where the privacy policies governing the use and sale of user data are unclear, consumers

¹⁸ Chris Hoofnagle, *Facebook and Google Are the New Data Brokers*, DIGITAL LIFE INITIATIVE (Dec. 18, 2018), https://www.dli.tech.cornell.edu/blog/facebook-and-google-are-the-new-data-brokers.

¹⁹ Geoffrey A. Fowler, *It's the Middle of the Night. Do You Know Who Your iPhone Is Talking To?*, THE WASHINGTON POST (May 28, 2019), https://www.washingtonpost.com/technology/2019/05/28/its-middle-night-do-you-know-who-your-iphone-is-talking.

²⁰ *Id*.

²¹ Many mobile apps are simply skins—in essence a traditional website rendered inside an app. But rendering the website as a dedicated app enables the developer to obtain additional unique identifiers, potentially including location data.

²² *Id*.

²³ *Id*.

²⁴ Olivia Solon and Cyrus Farivar, *Mark Zuckerberg Leveraged Facebook User Data to Fight Rivals and Help Friends*, NBC NEWS, (Apr. 18, 2019 3:30 AM), https://www.nbcnews.com/tech/social-media/mark-zuckerberg-leveraged-facebook-user-data-fight-rivals-help-friends-n994706.

²⁵ Richard Yao, *Data Privacy is Becoming a Luxury Good*, MEDIUM (Feb. 14, 2019), https://medium.com/ipg-media-lab/data-privacy-is-becoming-a-luxury-good-c7f731c92c7.

are unable to assess what their data is worth, and the non-price cost of privacy appears untethered to the value of the services provided by tech platforms.

Recent publicity over the collection of consumer data demonstrates that transparency about data privacy does affect consumers' perception of the value of these platforms, and some platforms have responded. Facebook's data policy now includes the disclaimer: "We are in the process of restricting developers' data access even further to help prevent abuse." At a developer conference in early May 2019, Mark Zuckerberg stated "the future is private"; Facebook has now reportedly agreed to create positions focused on strengthening its privacy policies as part of a settlement with the FTC. After Google+ users' private data was exposed, Google announced it would rein in the data it makes available to outside developers of Gmail apps. And Google CEO Sundar Pichai recently stated "we think privacy is for everyone" and announced that Google will let users browse YouTube and Google Maps in "incognito mode," among other new privacy features. 29

Apple—whose business model is predicated on selling products, services, and content, rather than the monetization of data—previously moved to differentiate itself in the user privacy arena. Apple CEO Tim Cook now suggests that the United States adopt comprehensive privacy legislation, including a data broker clearinghouse established by the FTC, to increase transparency in the market for data.³⁰

But Apple could face pressure to monetize consumer data in the future. In fact, the value of data unavailable through traditional data brokers has incentivized cell phone carriers like T-Mobile, Sprint, and AT&T to sell access to their customers' location data, effectively changing the deal consumers thought they had.³¹ This highly sensitive data is sold to location aggregators, but may end up being resold to any third party despite carriers' privacy policies.³²

C. The massive scale of data collected by dominant firms creates network effects and barriers to entry.

The sheer scale of the data collected by dominant platforms can entrench their dominance by creating barriers to entry for new competitors, both because of reinforcing network effects and market research analytics unavailable to other market participants.³³

²⁶ Data Policy, FACEBOOK, https://www.facebook.com/full data use policy (last visited Mar. 5, 2019).

²⁷ Cecilia Kang, *Facebook Set to Create Privacy Positions as Part of F.T.C. Settlement*, NEW YORK TIMES (May 1, 2019), https://www.nytimes.com/2019/05/01/technology/facebook-ftc-settlement.html.

²⁸ Douglas MacMillan, *Google Privacy Upgrades Could Jolt Gmail App Developers*, WALL St. J., Oct. 10, 2018, https://www.wsi.com/articles/google-privacy-upgrades-could-iolt-gmail-app-developers-1539188758.

²⁹ Jamie Condliffe, *The Week in Tech: Facebook and Google Reshape the Narrative on Privacy*, NEW YORK TIMES (May 10, 2019), https://www.nytimes.com/2019/05/10/technology/facebook-google-privacy.html.

Tim Cook, You Deserve Privacy Online. Here's How You Could Actually Get It, TIME, http://time.com/collection/davos-2019/5502591/tim-cook-data-privacy/ (last visited Mar. 5, 2019).

³¹ Lily Hay Newman, *Carriers Swore They'd Stop Selling Location Data. Will They Ever?*, WIRED (Jan. 9, 2019 7:43 PM), https://www.wired.com/story/carriers-sell-location-data-third-parties-privacy/.

³² Joseph Cox, *I Gave a Bounty Hunter* \$300. *Then He Located Our Phone*, MOTHERBOARD (Jan. 8 2019, 11:08 AM), https://motherboard.vice.com/en_us/article/nepxbz/i-gave-a-bounty-hunter-300-dollars-located-phone-microbilt-zumigo-tmobil.

³³ OECD BIG DATA REPORT, supra note 12, at 17. See also Does America Have a Monopoly Problem?: Examining Concentration and Competition in the US Economy: Hearing Before the Subcomm. on Antitrust, Competition Policy, and Consumer Rights of the S. Comm. on the Judiciary, 116th Cong. 8 (2019) (testimony of Hon. Robert B. Reich), https://www.judiciary.senate.gov/imo/media/doc/Reich% 20Testimony.pdf

Network effects can entrench incumbent platforms and make it difficult for new entrants to attract the investment necessary to build and grow competing platforms. Once a platform achieves a certain scale of users, widespread adoption draws additional users to the platform, and the presence of users draws additional developers and advertisers. This is the essence of network effects: the value of the product or service increases with each additional user. Potential market entrants, however, must establish a path to profitability (i.e., the ability to monetize data) to draw investors. But building a user base with the scale to compete against the incumbent platform takes time. When a product is "free" but requires a threshold user base to becomes profitable, a nascent firm may face pressure from investors to monetize quickly or else cede the market to the dominant firm. Even large companies with significant resources face significant barriers to achieving sufficient scale to compete against an incumbent firm that has achieved a dominant position in user data. Microsoft, for example, failed to successfully launch its mobile phone as a platform, and Google+ failed to draw enough users to become a viable competitor to Facebook.

As former FTC Director Debbie Feinstein noted, incumbents often have a significant head start collecting and verifying consumer data, which can make it quite difficult, costly, and time-consuming for a new firm to match their offerings.³⁵ While dominant platforms might innovate, a significant part of the quality gains may come from the scale and network effects of users and developers.³⁶ In social media, increased platform adoption by users increases the value of the platform to each individual user who creates or consumes content.³⁷ Similarly, an operating system benefits from scale because developers are attracted to the reach of the user base and then generate apps that make the platform more attractive.³⁸

A data-driven firm can experience additional network effects beyond creating a user base of sufficient scale by encouraging its user base to engage with its platform more often. Searchengine algorithms, for example, typically use algorithmic training to improve the quality of the search algorithm with each additional search query.³⁹

So it is with network effects: as the number of users increase, the attractiveness of the platform increases; typically, the result is that only one "winner"—the first firm to achieve a sufficient scale of data—emerges in the market, and their resulting market power is often sufficient to deter potential competitors. ⁴⁰ Recent examples include Facebook for social media, Google for search, and Amazon for online shopping. Unless a new competitor emerges that can supplant the dominant firm by quickly gaining new users and drawing users away from the dominant network,

^{(&}quot;Big Tech is amassing huge amounts of data about the personal behavior of virtually everyone. The sheer quantity of data will soon become an entry barrier of its own, further entrenching the giants.").

³⁴ Feng Zhu & Marco Iansiti, *Why Some Platforms Thrive and Others Don't*, HARV. Bus. Rev. (Jan.-Feb. 2019), https://hbr.org/2019/01/why-some-platforms-thrive-and-others-dont.

³⁵ Feinstein, *supra* note 6.

³⁶ Stucke, *supra* note 3, at 283.

³⁷ Zhu & Iansiti, *supra* note 34.

³⁸ Hoofnagle, supra note 18; United States v. Microsoft Corp., 253 F.3d 34, 55 (D.C. Cir. 2001).

³⁹ Studies show that the historical search improves search results up to 31%. Kira Radinsky, *Data Monopolists Like Google Are Threatening the Economy*, HARV. BUS. REV. (Mar. 2, 2015), https://hbr.org/2015/03/data-monopolists-like-google-are-threatening-the-economy.

⁴⁰ FTC Hearing #1: The Current Landscape of Competition and Privacy Law and Policy, Competition and Consumer Protection in the 21st Century: Hearing Before the Fed. Trade Comm'n, Sept. 13, 2018, at 149 (remarks of Fiona Scott Morton) [hereinafter FTC Hearing Transcript #1].

the firm's dominance is likely to remain unchallenged.⁴¹ Of course, this is not *necessarily* due to anticompetitive conduct: "The dominant platform may not do anything that can be properly qualified as anticompetitive, and yet the feedback loop can reinforce dominance and prevent rival platforms from gaining customers."⁴²

However, as discussed below in Part III.A, when the clear, dominant winner of the market also involves a dominant platform that collects large amounts of data, the firm has the opportunity to use its data advantage to identify and then eliminate a nascent competitor. The dominant platform can deny access to its data cache, limiting the growth of the new competitor. Even if the competitor starts to gain market share, the dominant platform may attempt to maintain its market position by simply acquiring the competitor.

II. In the digital era, non-price aspects of competition merit renewed antitrust attention.

Over the past decade, the technology sector has seen a proliferation of markets for zero-price and nominal-price goods and services. Recent antitrust enforcement in technology markets has often failed to meaningfully evaluate non-price aspects of competition such as innovation, consumer choice, and privacy. Recent comments by Makan Delrahim, antitrust chief at the United States Department of Justice, reaffirm the commitment of government antitrust enforcers to utilize current antitrust doctrine to address consumer harm in zero-price markets.⁴³

Government antitrust enforcers traditionally focus on price effects as the closest approximation of consumer welfare when evaluating whether firm conduct or a merger is anticompetitive (since all things being equal, consumers want to pay the lowest price for the product or service). In zero-price and nominal-price markets, however, the price of the good or service is free or nominal, leading to negligible "price" effects, if any. It does not follow, however, that such an absence of price effects equates to a lack of consumer harm or no reduction in consumer welfare. ⁴⁴ Instead, there are other—non-price—factors consumers may consider when selecting goods and services; amongst these are quality, privacy, and innovation.

A. Quality degradation constitutes non-price harm.

Technology companies operating in zero-price markets typically compete largely on the quality of their products, so changes in quality can have a substantial impact on consumer welfare.⁴⁵ Consumers in zero-price markets are typically attracted to a search engine, email service, or maps application for quality reasons because they pay no money for those products.⁴⁶

⁴³ Makan Delrahim, "I'm Free": Platforms and Antitrust Enforcement in the Zero-Price Economy (Remarks as Prepared for Delivery at Silicon Flatirons, University of Colorado Law School), Feb. 11, 2019, https://www.justice.gov/opa/speech/file/1131006/download.

⁴¹ Although Amazon is not ad dependent like Google or Facebook, its fast-growing ad business has outpaced forecasts. Garett Sloane, *Amazon Ad Sales Top* \$2 *Billion, Its Fastest-Growing Segment*, ADAGE (July 26, 2018), https://adage.com/article/digital/amazon-ad-sales-top-2-billion-fastest-growing-segment/314402/.

⁴² OECD BIG DATA REPORT, *supra* note 12, at 11.

⁴⁴ Indeed, an absence of price effects does not equate to an absence of economic activity. Stucke, *supra* note 3, at 285-86 ("[The] fact that a product or service is provided free of charge does not prevent the offering of such a service from constituting an economic activity for the purposes of [US] competition rules.").

⁴⁵ ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, QUALITY CONSIDERATIONS IN ZERO PRICE MARKETS: BACKGROUND NOTE BY THE SECRETARIAT, at 6 (Nov. 28, 2018), https://one.oecd.org/document/DAF/COMP(2018)14/en/pdf [hereinafter OECD QUALITY CONSIDERATIONS].

⁴⁶ Patterson, *supra* note 5, at 7.

In such cases, it makes little sense to focus on price effects as a source of consumer welfare, since quality degradation in a zero price market can be just as harmful, economically speaking, as a price increase would be in a traditional market.⁴⁷

Traditional analytic tools designed to measure price effects are largely ineffective in zero-price markets because non-price qualitative data points are often subjective and multivariate.⁴⁸ However, qualitative analytic tools have been crafted and used effectively to evaluate qualitative impacts to consumers in some markets,⁴⁹ suggesting that similar tools could be utilized in other markets where certain quality factors are widely accepted and agreed upon.⁵⁰ One possibility is to evaluate markets by measuring consumer switching or other consumer behaviors that result from small but significant and non-transitory changes in quality ("SSNIQ").⁵¹ Although Microsoft's acquisition of Skype was ultimately cleared by the European Commission, application of the SSNIQ test revealed that more than 75% of Skype Manager users would stop using the product if they had to pay for it.⁵²

Under ordinary circumstances, quality degradation in a zero-price market will result in lost market share; however, when a firm acquires market power in a zero-price market, it can save costs by degrading quality without losing market share if consumers are unaware or have become unresponsive to quality degradation.⁵³ Certain characteristics of technology platform markets can dissuade consumers from switching to otherwise higher-quality competitors. For instance, due to the natural complexity of technology products, consumers often lack adequate information to evaluate a product's quality and may fail to observe or assess gradual reductions in quality. Additionally, consumers often face high switching costs due to the lock-in effects common to technology platform products.⁵⁴

Further, consumers may experience status quo bias where they have been steered by convenience to a default product or service and are unable to distinguish the default from a competitor's higher-quality product or service.⁵⁵ This often occurs where a product or service sold is dependent on a particular dominant platform, such as a mobile operating system. For example, some reports estimate that Google will pay Apple as much as \$12 billion in 2019 to remain the default search engine in Apple's Safari browser, which is pre-loaded on Apple's iOS mobile phone

⁴⁷ MAURICE E. STUCKE & ALAN GRUNES, BIG DATA AND COMPETITION POLICY 115 (2016).

 $^{^{48}}$ *Id*

⁴⁹ Evaluation of hospital mergers, for example, lends itself to quality analysis, because the healthcare industry widely agrees that certain quality metrics such as morbidity and complications from medical procedures directly measure the quality of care in hospitals. *See* ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, THE ROLE AND MEASUREMENT OF QUALITY IN COMPETITION ANALYSIS, at 124-26 (Oct. 28, 2013), http://www.oecd.org/competition/Quality-in-competition-analysis-2013.pdf.

⁵⁰ STUCKE & GRUNES, *supra* note 47, at 116.

⁵¹ The SSNIQ test is a variation on the SSNIP (small but significant non-transitory increase in price) which evaluates the behavior of consumers in response to a price increase in order to define a market before a determination can be made on whether a given firm has market power in a given market. In zero-price markets, the absence of a price factor makes the SSNIP test unworkable, but the SSNIQ test could help define the market, where certain qualitative factors are easily measured and calculated. *See* Michal S. Gal & Daniel L. Rubinfeld, *The Hidden Costs of Free Goods: Implications for Antitrust Enforcement*, 80 ANTITRUST L.J. 521, 551-52 (2016).

⁵² STUCKE & GRUNES, *supra* note 47, at 122 n.71.

⁵³ *Id.* at 120-21.

⁵⁴ *Id.* at 121.

⁵⁵ *Id*.

operating system.⁵⁶ This allows Google to benefit from the likelihood that users of Apple iOS will choose the default search engine (Google) over a rival search engine.⁵⁷ Consumers who purchase an iPhone (with Apple's iOS) are most likely to stick with Google as their default search engine, unlikely to detect any gradual degradation in quality, less likely to evaluate qualitative improvements of competing applications, and less willing to incur the costs of switching to a competing application.

Technology firms can also decrease their product's interoperability with other products or services as a means to prevent users from migrating to a competitor or evaluating the quality of a competitor's product or service.⁵⁸ Even where a user is aware of and sensitive to degradations in product quality, they are unlikely to notice reductions to interoperability with other products or services until they attempt to perform a function that requires coordination.⁵⁹

B. Privacy degradation constitutes non-price harm.

Although consumer demand for data privacy and security might be better achieved through the development of robust consumer protection and data privacy legislation, there are some circumstances in which government antitrust enforcers may have a role to play. This is particularly applicable where data privacy is an element of quality for a product or service and firms compete to provide consumers with better data privacy or security terms or protections. Antitrust concerns arise when a firm obtains market power sufficient to ignore or neglect consumer demands for data privacy and security or otherwise enable it to degrade data privacy and security without sacrificing market share.

Most data-driven business models depend on harvesting and exploiting the personal data of their user base, which creates a disincentive to provide strong privacy protections as the firm seeks to collect ever greater quantities of personal data. A dominant platform can exploit consumer data by offering access to that data to draw developers or advertisers. Because users in zero-price data-intensive markets often lack adequate information about how their data is leveraged, the market is unlikely to provide the privacy protections desired by users on their own. In some cases, consumers may be willing to pay a nominal price for a product or service in a zero-

⁵⁸ For example, Tencent made its instant messaging software incompatible with Qihoo in response to Quihoo's introduction of antivirus software that reduced the number of advertisements Tencent users encountered while using the Tencent instant messaging platform. *See id.* at 119.

⁶¹ Additionally, if that platform offers products or services that are not free, the collection of user data enables that platform to engage in price discrimination for those goods or services based on that consumer data. That same firm could offer access to that data allowing other firms to price discriminate. Consequently, it is possible that users who supply the data collection firm with user data ultimately pay for the privilege in the form of higher prices for goods

and services in the marketplace. *See* Maurice E. Stucke & Ariel Ezrachi, *Looking Up in the Data-Driven Economy*, CPI ANTITRUST CHRONICLE, at 2 (May 2017), https://www.competitionpolicyinternational.com/wp-content/uploads/2017/05/CPI-Stucke-Ezrachi.pdf.

⁵⁶ Lisa Marie Segarra, *Google to Pay Apple \$12 Billion to Remain Safari's Default Search Engine in 2019: Report*, FORTUNE (Sept. 29, 2018), http://fortune.com/2018/09/29/google-apple-safari-search-engine/.

⁵⁷ STUCKE & GRUNES, *supra* note 47, at 122.

⁵⁹ *Id.* at 120-21 (although the European Commission ("EC") ultimately approved Microsoft's acquisition of Skype, the EC determined that Microsoft had the capability to degrade Skype's interoperability with other platforms postmerger, as an element of consumer harm).

⁶⁰ Stucke, *supra* note 3, at 286.

price market simply because it provides a measure of privacy protection that other products in a zero-price market do not.⁶²

Further, privacy protection and data security may not be a zero-sum issue for consumers. In fact, many consumers may be willing to trade off some privacy protection or data security for a product or service that is superior in quality or with the ability to interconnect and share data with other platforms to improve a different product or service.⁶³ Although degradation of users' data privacy is not necessarily harmful to consumers in all cases, a significant reduction in consumer choice might constitute harm over and above price effects or quality degradation, even where the majority of users are willing to sacrifice privacy protections for a better-quality product.⁶⁴

C. Harm to innovation constitutes non-price harm.

While competition frequently leads to lower prices, innovation can be an equally important benefit of the competitive process.⁶⁵ In the face of a competitive threat, a dominant firm is incentivized to innovate its products and services to maintain or increase their market share. In zero-price markets, firms must improve their products to compete for users and user data on one side of the market in order to sell that data or provide services dependent on that user data to third parties on the other side of the market. Competition for user data spurs those firms to innovate their zero-price products or services to attract the most users and compile as much user data as possible.⁶⁶

There is nothing inherently anticompetitive when a firm obtains a dominant position through a superior product or service by leveraging its scale of user data. However, once this happens, the scale of that data can pose a very high (if not insurmountable) barrier to entry for potential competitors.⁶⁷ In such cases, the inability of potential competitors to achieve sufficient scale in user data can chill the incumbent's incentive to innovate its products or services to stay ahead of its competitors.

III. Technology platform markets may exhibit a variety of exclusionary conduct.

Over the past decade, technology platforms Google, Amazon, Apple, Facebook, and Microsoft have acquired over 400 different companies and start-ups.⁶⁸ A dominant firm with a significant competitive advantage in user data is often in a position to utilize that data to identify and then exclude actual or potential competitors from the market.

⁶² Prior to its acquisition by Facebook, WhatsApp charged users a nominal fee for its messaging service, but also did not sell advertising and collected only a minimal amount of users' personal data. *See* STUCKE & GRUNES, *supra* note 47, at 75.

⁶⁶ See OECD QUALITY CONSIDERATIONS, supra note 45, at 17 ("[I]n many online platforms, revenues are earned proportionate to the user base from both advertising and data collection.").

⁶³ See OECD QUALITY CONSIDERATIONS, supra note 45, at 8.

⁶⁴ US DEP'T OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES § 6.4 (2010), https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf [hereinafter HORIZONTAL MERGER GUIDELINES].

⁶⁵ STUCKE & GRUNES, supra note 47, at 108.

⁶⁷ Providing a free product based on the sale of user data likely creates an entry barrier to potential competitors who would compete with the incumbent by providing a higher quality product for a fee. *See* STUCKE & GRUNES, *supra* note 47, at 160.

⁶⁸ Jonathan Tepper & Denise Hearn, *If You Don't Think Today's Tech Giants Are Vicious, Just Ask Venture Capitalists*, PROMARKET.ORG (Nov. 27, 2018), https://promarket.org/silicon-valley-vicious-dark-jungle/.

A. Dominant platforms may leverage data advantages to target rivals.

Because network effects tend to produce a winner-take-all market, winners tend to monitor the landscape for start-ups with the potential to unseat them. Competition concerns arise when dominant platforms can leverage their unique access to data to identify these nascent competitors and acquire or exclude them. Google, for example, has access to user search data, social media data, data from scraping user emails, and cellphone and location data from its Android operating system that it can leverage to exclude actual or potential competitors from a market. Google's actual and potential competitors are unlikely to have access to the same scope and depth of user data, which allows Google to identify and target not only which companies are potential competitive threats, but also the specific details of their business model, growth curve, and comparative advantage.

So while the monopolies of the past were relatively less aware of what their customers and rivals were doing (or planning to do), the massive troves of real-time data (search inquiries, social network postings, etc.) give today's dominant platforms a new tool: "nowcasting," i.e., "predict[ing] the present." Of course, "[n]owcasting can yield a competitive advantage and, at times, increase overall welfare in forecasting, among other things, flu epidemics, unemployment levels, number of Food Stamp recipients, or fishing harvests." But it can be anticompetitive, too:

Nowcasting also represents a potent data-based weapon not previously available for monopolies: the ability to monitor new business models in real time. The data-opoly can use its relative advantage in accessing and processing personal data, such as watching for trends in its proprietary data from posts on a social network, search queries, emails, and the like, to quickly identify (and squelch) nascent competitive threats. The dominant firm can acquire entrants before they become significant competitive threats or blunt the entrants' growth. It can manipulate its search engine results to make it harder to find the entrants or remove them from the app store.⁷²

Facebook arguably used the predictive value of data under its control to anticipate and eliminate competitive threats to user engagement. Facebook acquired Onavo in 2013 and marketed it to Facebook users as security software, when in reality it gathered additional data on app usage and browsing.⁷³ Facebook then used Onavo's iPhone user data to discern that WhatsApp was a potential rival (8.6% of traffic, compared to Facebook Messenger's 13.7%). The report of Onavo data also included direct comparisons between Facebook and WhatsApp usage, with WhatsApp outperforming Facebook.⁷⁴ With that information in hand, Facebook announced its acquisition of

⁷² *Id.* at 305-06.

⁶⁹ The World's Most Valuable Resource Is No Longer Oil But Data, THE ECONOMIST (May 6, 2017), https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data.

⁷⁰ Stucke, *supra* note 3, at 305.

⁷¹ *Id*.

⁷³ Josh Constine, *Facebook Will Shut Down its Spyware VPN App Onavo*, TECHCRUNCH.COM (Feb. 2019), https://techcrunch.com/2019/02/21/facebook-removes-onavo/.

⁷⁴ HOUSE OF COMMONS, DIGITAL, CULTURE, MEDIA, AND SPORT COMMITTEE, DISINFORMATION AND 'FAKE NEWS': FINAL REPORT, at 36-37, https://publications.parliament.uk/pa/cm201719/cmselect/cmcumeds/1791/1791.pdf [hereinafter Parliament Report] ("[The Onavo data] helped [Facebook] to decide which companies were performing well and therefore gave them invaluable data on possible competitors. They could then acquire those companies, or shut down those they judged to be a threat.").

WhatsApp less than a year later on February 19, 2014. Onavo also allowed Facebook to keep tabs on Snapchat's growth. 75

In another potentially anticompetitive tactic, Facebook excluded a potential rival for user engagement from access to its data. Upon Twitter's launch of Vine in January 2013, Facebook took steps to remove Twitter's access to "friends" data, a move apparently intended to harm Vine, a competitor to Facebook's recent Instagram acquisition. The UK Parliament Report concluded: "It is clear that Mark Zuckerberg personally approved the decision to deny access to data for Vine. In October 2016, Vine announced that Twitter would be discontinuing the Vine mobile app, in part due to the fact that they could not grow their user base."

B. Nascent competitors are often acquired by dominant firms in technology platform markets, but these acquisitions are often not HSR-reportable.

Innovation in the technology sector has traditionally originated not from dominant incumbent firms, but rather the proliferation of entrepreneurial start-ups. That has changed in recent years, as creative tech talent and innovative ideas are increasingly acquired by a handful of dominant firms before they can achieve sufficient scale to act as a significant competitive threat to incumbent firms.⁷⁷

Much of the innovation in today's technology markets occurs as a result of an incumbent firm acquiring a start-up, its technology, intellectual property, or other key assets, as a means of creating a new product or service. In fact, venture-capital financing has declined significantly in internet retail, internet software, and social-platform software in recent years, and the mere possibility that a company like Google or Amazon would enter a particular market may well have deterred innovation by start-ups and third-party merchants.⁷⁸

Mergers and acquisitions by dominant platforms can raise anticompetitive concerns when they become so common that they stifle any potential nascent competition before it can achieve the scale necessary to truly compete. Although some benefits of the acquired technology, assets, or intellectual property can matriculate to the dominant firm's users as the result of the acquisition, those benefits do not necessarily matriculate to the target firm's users. The most concerning acquisitions are those motivated by a desire of the dominant firm to kill an innovative technology in its infancy to prevent it from ever becoming a competitive threat; such acquisitions benefit neither the dominant firm's users or the target firm's users.⁷⁹

If a nascent competitor is able to achieve scale and challenge a dominant firm or change the nature of the market in such a way that it is likely to displace the incumbent firm's dominance, the acquisition of the nascent competitor serves to foreclose the market to meaningful competition and can result in substantial harm to innovation if the dominant firm has no incentive to develop and exploit the nascent firm's innovative technology. Facebook's acquisitions of Instagram and WhatsApp, for example, had the effect of neutralizing competitors that were potential market disruptors. Facebook's user base was trending older, as younger users began to gravitate away from Facebook and towards platforms such as Instagram and WhatsApp that provided experiences

⁷⁵ Yao, *supra* note 25.

⁷⁶ PARLIAMENT REPORT, *supra* note 74, at 38.

Noah Smith, *Big Tech Sets Up a 'Kill Zone' for Industry Upstarts*, BLOOMBERG (Nov. 7, 2018), https://www.bloomberg.com/opinion/articles/2018-11-07/big-tech-sets-up-a-kill-zone-for-industry-upstarts.

⁷⁸ *Id*.

⁷⁹ *Id*.

more tailored toward youthful preferences and enhanced privacy protections. ⁸⁰ But after the acquisitions, Facebook did not preserve some of the main features that made these rivals attractive alternatives. For instance, Facebook diluted many of the privacy protections that made WhatsApp so popular. ⁸¹ Facebook also prototyped a location-tracking feature in Instagram and began to withdraw key technology and monetary support due to concerns that Instagram siphoned traffic away from Facebook. In hindsight, it appears these acquisitions were meant to protect Facebook's traffic rather than develop differentiated platforms, features, and audiences. ⁸²

Acquisitions of nascent competitors by dominant, data-driven firms can present an additional hurdle to antitrust enforcement: many such acquisitions fall below Hart-Scott-Rodino ("HSR") reporting thresholds, so the agencies will often not receive any notice until the proverbial eggs are scrambled. If a dominant technology platform firm such as Facebook, Amazon, or Google purchases a nascent competitor today, it is HSR-reportable only if the nascent competitor has annual net sales or total assets valued at \$18 million. But in the fast-paced, information-driven market of the internet, a dominant firm can identify a new technology company as a threat long before it reaches the \$18-million mark. Consider Facebook's 2017 acquisition of tbh, a fast-growing social networking app popular with teens. Facebook made the acquisition a mere matter of months after the launch of tbh's app and long before tbh had accumulated significant assets (aside from its data). To our knowledge, no HSR filing was required for that acquisition.

IV. Recommendations for Merger Enforcement in Technology Platform Markets

With all of the foregoing in mind, these Comments offer several recommendations for improving merger enforcement in the digital age. Before turning to the specifics of those recommendations, these Comments address a general overriding consideration: the decision theory (or enforcement philosophy) driving today's antitrust enforcement.

⁸⁰ Dara Kerr, *Instagram Users Are Young and Facebook Users Are Old*, CNET (Apr. 10, 2012 5:40 PM), https://www.cnet.com/news/instagram-users-are-young-and-facebook-users-are-old/; Complaint, Request for Investigation, Injunction, and Other Relief, Elec. Privacy Info. Ctr. & Ctr. for Digital Democracy, *In re WhatsApp*, *Inc.* (F.T.C. Mar. 6, 2014), *available at* https://epic.org/privacy/ftc/whatsapp/WhatsApp-Complaint.pdf.

⁸¹ Gennie Gebhart, *What Facebook and WhatsApp's Data Sharing Plans Really Mean for User Privacy*, Electronic Frontier Foundation (Aug. 31, 2016), https://www.eff.org/deeplinks/2016/08/what-facebook-and-whatsapps-data-sharing-plans-really-mean-user-privacy-0; *see also* STUCKE & GRUNES, *supra* note 47, at 83.

⁸² Nicholas Thomson and Fred Vogelstein, *15 Months of Fresh Hell Inside Facebook*, WIRED (Apr. 16, 2019 5:30 AM), https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/.

⁸³ Revised Jurisdictional Thresholds for Section 7a of the Clayton Act, 84 Fed. Reg. 7369 (Mar. 1, 2019), *available at* https://www.govinfo.gov/content/pkg/FR-2019-03-04/pdf/2019-03395.pdf.

⁸⁴ Tbh was a "positive message" social media app launched in September 2017 which was targeted at teenagers. A month later, it was ranked as the #1 download in the U.S. App Store. Facebook acquired tbh at that point for a reputed \$100 million. Josh Constine, *Facebook Acquires Anonymous Teen Compliment App tbh*, *Will Let It Run*, TECHCRUNCH (Oct. 16, 2017), https://techcrunch.com/2017/10/16/facebook-acquires-anonymous-teen-compliment-app-tbh-will-let-it-run/. A year later, Facebook shut tbh down, citing "low usage." Jon Fingas, *Facebook Shuts Down tbh and Other Apps Over 'Low Usage'*, ENGADGET (Sept. 2, 2018), https://www.engadget.com/2018/07/02/facebook-shuts-down-tbh-hello-moves/.

⁸⁵ Tim Peterson, *Facebook Acquires Teen-Centric Polling App tbh and All its Valuable Data*, MARKETINGLAND (Oct. 17, 2017 at 4:14 PM), https://marketingland.com/facebook-acquires-teen-centric-polling-app-tbh-valuable-data-226462.

A. Recalibrating enforcement philosophy: the FTC should strive to accurately balance the risks of non-enforcement in technology platform acquisitions.

"Antitrust enforcement is inevitably hindered by a fundamental dilemma: for a variety of reasons, the economic impact of many contestable business behaviors is uncertain and therefore very difficult to assess correctly ex ante." So in any antitrust enforcement scheme, at least some "[e]rrors of over-enforcement (Type I) or under-enforcement (Type II) are inevitable," and "[r]ational enforcement policy has to weigh the relative costs and benefits of erring on the side of committing one or more types of error." This country's enforcement philosophy pendulum has arguably seen both sides of the spectrum, seeming to prefer over-enforcement in some periods and under-enforcement in others. Currently, the predominant philosophy seems to favor under-enforcement. This slight shift in mindset underlies and informs these Comments' recommendations.

While these Comments are no substitute for the tomes of scholarship and advocacy exploring decision theory and enforcement philosophy in antitrust law, we offer a few brief observations. First, "Type I errors [false positives] are not necessarily more harmful to society than false negatives, particularly on a cumulative basis," and "a false positive need not eliminate the full social value of the conduct wrongly condemned [because] [s]econd-best options remain open to the affected companies and it is possible that these may in fact produce preferable outcomes in the long run." Second, as recently demonstrated by an in-depth study of merger retrospectives, harm from merger under-enforcement often results in significant price increases.

Finally—and most important for present purposes—one of the bedrock justifications for favoring under-enforcement is the assumption that the market will correct false negatives. ⁹¹ But particularly when network effects are at issue, it is much less likely "that free-market forces will always undo anticompetitive harms within a reasonable time." ⁹² This is because "network-effect-

⁸⁶ Alan Devlin & Michael Jacobs, Antitrust Error, 52 WM. & MARY L. REV. 75, 82 (2010).

⁸⁷ Peter C. Carstensen & Robert H. Lande, *The Merger Incipiency Doctrine and the Importance of "Redundant" Competitors*, 2018 Wis. L. Rev. 783, 793-94 (2018).

⁸⁸ See, e.g., Lina M. Khan, The Ideological Roots of America's Market Power Problem, 127 YALE L.J. FORUM 960, 974 (2018) (arguing that "current framework in antitrust fails to address our market power problem [due to] its embedded preference for under-enforcement," and concluding that "there is reason to doubt the empirical basis for preferring under-enforcement to over-enforcement"); William Bradford, The Creation and Destruction of Price Cartels: An Evolutionary Theory, 8 HASTINGS BUS. L.J. 285, 291 & n.31 (2012) ("Courts and agencies are increasingly aware of and interested in avoiding 'false positives'..."); Devlin & Jacobs, supra note 86, at 75, 79 (noting that "[t]he fear of mistakenly ascribing anticompetitive labels to innocuous conduct is now pervasive" because "[c]ourts, agencies, and academics have reacted to antitrust's unusual vulnerability to error by adopting a bias in favor of false negatives (Type II errors)"); id. at 131 ("The current mode of antitrust-error analysis reflects Chief Judge Easterbrook's [view that] Type I errors are worse than false negatives because the former are perpetual, whereas the latter will be promptly eroded by the corrective forces of the free market."); Lawrence M. Frankel, The Flawed Institutional Design of U.S. Merger Review: Stacking the Deck Against Enforcement, 2008 UTAH L. REV. 159, 171-72 (2008) (discussing how institutional design of merger review incentivizes under-enforcement by the FTC and DOJ).

⁹⁰ JOHN KWOKA, MERGERS, MERGER CONTROL, AND REMEDIES: A RETROSPECTIVE ANALYSIS OF U.S. POLICY (2015).

⁹¹ Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 15 (1984) (arguing that Type I errors are often more harmful than Type II errors because it is generally easier for the market to undercut and correct for monopolies than to correct for judicial errors).

⁹² Devlin & Jacobs, *supra* note 86, at 99-100, 132.

driven markets have shown themselves to be resistant to displacement of the incumbent monopolists."93

Accordingly, these Comments recommend a slight shift in enforcement philosophy, most particularly with respect to mergers involving technology platforms. We now turn to several concrete ways to further our collective antitrust enforcement goals.

B. Recommendation: the FTC should expand recent initiatives to work closely with state attorneys general.

The FTC and state attorneys general have a long history of close cooperation in merger reviews. Recently, the FTC has made a conscious effort to strengthen that relationship through focused and sustained outreach. In particular, over the past year several of the FTC's regional offices have held a series of in-person and telephonic "common ground conferences." We support this initiative and favor increased coordination. We believe that state attorneys general can be valuable partners in many areas that are particularly relevant to evaluating technology platform mergers. We support the concept behind the FTC's newly created Technology Task Force and we recommend the development of close liaisons between that task force and existing state enforcement working groups.

One area where increased coordination between the FTC and state attorneys general may be particularly beneficial is with respect to the problems, discussed above, that arise when potentially anticompetitive technology platform acquisitions fall below HSR filing requirements. The FTC can work with state attorneys general to develop ways to identify such acquisitions. We believe that such identification may be possible in most instances because there are a finite number of dominant technology platforms, and because their acquisitions tend to be publicly disclosed (in press releases, SEC filings, etc.). This is a specific example of an area where the newly formed FTC Technology Task Force could work with state attorneys general working groups to formulate a protocol for rapidly identifying and jointly evaluating the impact of acquisitions of nascent competitors.

In addition to increased cooperation, or even legislative reforms to HSR thresholds (addressed in Part V below), the FTC can ensure they receive notice and have adequate opportunity to investigate many dominant technology platform firms' acquisitions of nascent competitors via "prior notice" and "prior approval" requirements.

Suppose, for example, that the D.C. Court of Appeals had mistakenly allowed Microsoft to disadvantage Netscape and Java. No "nascent" threat to Microsoft's operating system could have gotten off the ground. Yet even now, years into the "post-corrective" period, there is still no effective challenger. Carl Shapiro has written that remedies in this regard-in this case-have proven woefully inadequate because they appear unable to restore the competition lost by virtue of Microsoft's misconduct. If the market plus remedies could not wash out the competitive harm caused by Microsoft, how can the market do it unaided in all other cases?

Id. at 99-100 (footnotes omitted).

⁹³ *Id.* at 132. Delvin and Jacobs explain:

C. Recommendation: the FTC should require prior approval and/or prior notice for future acquisitions as part of more consent decrees in technology platform markets.

"Prior notice" and "prior approval" requirements are already part of the FTC's injunctive toolkit. In fact, prior to 1995, it was the FTC's default "general policy [to] includ[e] 10-year prior-approval requirements for future transactions in merger orders." Under such requirements, the FTC would mandate as part of a settlement agreement that a party notify it of (and/or obtain its approval before consummating) any new merger or acquisition meeting certain criteria (e.g., in a particular market, of a particular size) for some period of time (usually 10 years). In 1995, the FTC moved away from these as default requirements, resolving instead to "rely on the HSR Act as its principal means of learning about and reviewing mergers by companies against which the Commission has taken prior law-enforcement action." Crucially, however, the FTC averred at this time "that it may continue to include narrow prior-approval or prior-notice provisions where there is credible risk that the parties will engage in another anticompetitive transaction." In particular, it reserved the right to "include a supplemental HSR-like prior-notification requirement where there is credible risk that the respondent will attempt an anticompetitive transaction that does not meet HSR notification requirements." The FTC has, in fact, continued to do so in various contexts, including retail fuel outlets, health care, function functions functions as the DOJ in, for example, aggregates, full milk processing, full and waste management industries).

However, to our knowledge, the agencies have not utilized prior notice or prior approval requirements in any technology platform markets (e.g., with Google, Facebook, or Amazon). But as above, technology platform markets—where network effects are pronounced—are particularly susceptible to acquisitions of nascent competition which may be anticompetitive but which are not subject to HSR reporting requirements. Accordingly, we recommend that the agencies seriously consider—and utilize, in appropriate cases—prior notice and/or prior approval requirements when the market at issue involves a technology platform. With dominant technology platforms likely to continue their practice of acquiring small market players before they have the opportunity to develop into serious challengers, this is a relatively low-cost method to ensure appropriate antitrust

⁹⁶ *Id*.

⁹⁷ *Id*.

98 Id

⁹⁴ Press Release, Fed. Trade Comm'n, FTC Acts To Reduce Prior-Approval Burden on Companies in Merger Cases (June 22, 1995), https://www.ftc.gov/news-events/press-releases/1995/06/ftc-acts-reduce-prior-approval-burden-companies-merger-cases.

⁹⁵ *Id*.

⁹⁹ Decision and Order, *Seven & i Holdings Co.*, FTC File No. 171 0126 (Mar. 29, 2018), available at https://www.ftc.gov/system/files/documents/cases/171_0126_c4641_seven_sunoco_decision_and_order.pdf.

¹⁰⁰ Decision and Order, *Phoebe Putney Health System, Inc.*, FTC File No. 111 0067 (Mar. 31, 2015), available at https://www.ftc.gov/system/files/documents/cases/150331phoebeputneydo.pdf.

¹⁰¹ Decision and Order, *Service Corp. Int'l*, FTC File No. 131 0163 (Dec. 23, 2013), available at https://www.ftc.gov/sites/default/files/documents/cases/131223scido.pdf.

¹⁰² Final Judgement, *United States v. Vulcan Materials Co.*, Case No. 1:17-CV-02761 (D.D.C. 2018), available at https://www.justice.gov/atr/case-document/file/1049851/download.

¹⁰³ Final Judgement, *United States v. Dean Foods Co.*, Case No. 10-CV-59 (E.D. Wi. 2011), available at https://www.justice.gov/atr/case-document/file/516096/download.

¹⁰⁴ Final Judgement, *United States v. Waste Management, Inc.*, Case No. 1:03CV02076 (D.D.C. 2004), available at https://www.justice.gov/atr/case-document/file/516096/download.

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oversight. Of course, antitrust enforcers should exercise discretion and strive to avoid imposing unnecessary regulatory hurdles for smaller acquisitions, particularly where the target start-up company specifically designed its products, services, or business model to integrate with or create a solution for a dominant firm's platform. 105 Such acquisitions and investments are often the incentive that these start-up companies pursue, so creating too onerous of an approval process for those acquisitions could negatively impact innovation.

But notice requirements (by agreement or by legislation) are, of course, meaningful only to the extent the agencies utilize proper analytic tools in evaluating mergers and acquisitions. These Comments now address some of those tools.

D. Recommendation: non-price effects should be a staple of merger analysis in technology platform markets.

The Horizontal Merger Guidelines acknowledge several non-price effects of mergers for consideration, including "reduced product quality, reduced product variety, reduced service, or diminished innovation."106 Although the FTC has addressed non-price effects in merger analysis, ¹⁰⁷ consideration of these effects should be given greater priority in technology platform market mergers.

The unique aspects of technology platform markets provide a rare opportunity to revisit the role of non-price effects in merger analysis, including an opportunity to reexamine and expand the relevant factors the agencies should consider. Privacy protection and consumer choice/autonomy have so far played only limited roles in antitrust analysis. Enhanced market power in the data context provides greater opportunities to exploit consumer data and create greater switching costs for consumers. The ability of consumers to "multihome" and port their data seamlessly between platforms is key to competition in this area. As a result, consumers may suffer in ways that can be difficult to quantify under traditional antitrust analysis. Those harms should nonetheless be considered in evaluating technology platform mergers and could even be addressed through behavioral remedies (in appropriate circumstances and with sufficient enforcement mechanisms).

As Assistant Attorney General Delrahim recently noted, the consumer welfare standard "takes into account effects on quantity, quality, consumer choice, and innovation." With respect to their personal data, "consumers can be expected to prefer to provide either the least amount of data, or have the most control over the use of their personal data, holding all other elements of a product or service constant." ¹⁰⁹ If a merger between firms holding consumer data results in a reduction of privacy, that can mean a reduction in product quality. Analyzing specific non-price

¹⁰⁵ Many technology sector acquisitions by dominant firms are of start-up companies whose business model is to craft innovative solutions for the dominant technology platforms in hope of catching the attention of dominant firms for potential investment or acquisition. See Adam Bluestein, How to Hunt Big Game, INC., March 2015, https://www.inc.com/magazine/201503/adam-bluestein/tipsheet-hunting-big-game.html.

¹⁰⁶ HORIZONTAL MERGER GUIDELINES, *supra* note 64, at § 1.

¹⁰⁷ The FTC investigated the possibility that the Google's acquisition of DoubleClick "could adversely affect nonprice attributes of competition, such as consumer privacy." Fed. Trade Comm'n, Statement of Federal Trade Commission Concerning Google/DoubleClick (Dec. 2007), https://www.ftc.gov/system/files/documents/public statements/418081/071220googledc-commstmt.pdf.

¹⁰⁸ Delrahim, *supra* note 43, at 10.

¹⁰⁹ ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, CONSIDERING NON-PRICE EFFECTS IN MERGER SECRETARIAT, 29 2018), CONTROL BACKGROUND BY THE (May 4, NOTE https://one.oecd.org/document/DAF/COMP(2018)2/en/pdf.

effects will require a case-by-case approach, but the following examples of non-price factors should play a greater role in a merger analysis in data markets:

- privacy protections for consumer data;
- consumer control of data;
- notice of data usage;
- consumer choice diversity of options;
- reduction in frequently used features;
- ease of consumers extricating themselves and their data from a platform; and
- data portability across platforms.
- E. Recommendation: Clayton Act Section 7 merger analysis of technology platform mergers should address network effects, and Sherman Act Section 2 provides an even stronger tool for policing monopolists' acquisitions of nascent competition.

Although the bar for challenging mergers seems to have generally increased considerably over the last several decades, Clayton Act Section 7 still contains the necessary authority and flexibility for the agencies to tackle market concentration in technology platform markets. On its face, Section 7 applies to the acquisition of assets "in any line of commerce or in any activity affecting commerce" the effect of which "may be substantially to lessen competition, or tend to create a monopoly." The Supreme Court has long held that "a judgment under § 7 is not to be made by any single qualitative or quantitative test"; rather, "[t]he merger must be viewed functionally in the context of the particular market involved, its structure, history, and probable future."

Technology platform markets, as addressed above, involve considerable network effects, whereby competition is not so much *within* the market as it is *for* the market. These markets often present themselves as winner-take-all situations, with one firm securing a dominant share and smaller firms occupying only the periphery. ¹¹²

The nature of technology platform markets necessitates consideration of a wide range of factors in merger analysis, including (where applicable) the particulars of network effects. Indeed, this is plainly required in order to view such mergers, as the Supreme Court instructs, "functionally in the context of the particular market."¹¹³

While Section 7 is often an appropriate and very strong merger enforcement tool in technology platform markets, Sherman Act Section 2 can be even stronger under some circumstances, namely, when monopolists seek to acquire nascent competition. Largely due to network effects, those circumstances are somewhat common in technology platform markets (because with network effects, one dominant market participant typically occupies the majority of the market and their only real competitive threats come from small start-up competitors). As economist Fiona Scott Morton testified at a recent FTC hearing:

That 99 percent guy is afraid the epsilon is going to become one and attract all the teenagers and there is going to be a flip. So we care a lot about that epsilon and that

¹¹⁰ 15 U.S.C. § 18.

¹¹¹ United States v. Continental Can Co., 378 U.S. 441, 458 (1964).

¹¹² See, e.g., FTC Hearing Transcript #1, supra note 40, at 149.

¹¹³ Continental Can, 378 U.S. at 458.

is where the competition is coming from. And we need to dust off our theories of harm when it comes to potential competition. We need to stop investing so much importance in market share. The market share of the little guy is not big, and when you calculate the Herfindahls, nothing is going to happen when you analyze this merger. Does that mean there was no competitive significance to the little player? Quite the contrary. All those little players are the only ones that are making the 99 percent pedal faster and work harder to keep consumers because they are all potentially able to overthrow the incumbent.¹¹⁴

The limitations of traditional Herfindahl-Hirschman Index ("HHI") market concentration analysis are readily apparent in the context of markets characterized by network effects such as technology platform markets. If the dominant firm can target a nascent competitor (identifiable through its access to user preference data) before it even gains market share (e.g., Facebook's acquisition of tbh, addressed above), the transaction will not even register in an HHI analysis. The real issue when potential or nascent competition is at issue is simply not market share; it is the snuffing out of competition before it gets off the ground.

In analyzing mergers between an incumbent and a recent or potential entrant, the Horizontal Merger Guidelines (2010) suggest that the agencies will use projected market shares to evaluate the change in concentration, ¹¹⁵ and that they may consider the disruptive role of a merging party. ¹¹⁶ But courts still require plaintiffs to show at least a "reasonable probability" that one of the merging firms would have entered the other's market but for the merger. ¹¹⁷

Rather than approach a monopoly's acquisition of a nascent competitor as a merger, enforcers can approach the transaction as exclusionary conduct under Section 2 of the Sherman Act. Where a monopolist effectively eliminates nascent competition from developing by acquiring a nascent competitor, the anticompetitive concerns are much less speculative. Areeda and Hovenkamp observe that "[t]he case for condemnation is strongest where the acquired firm has actually made attempts to enter the monopolist's market or where its entry is imminent." They advocate—as do these Comments—treating a monopolist's acquisition of any firm that is a "more-than-fanciful possible entrant" as *presumptively* anticompetitive. 119

Although not an acquisition, Microsoft perceived a threat to its dominance of Intel-compatible personal computer operating systems and took actions against "middleware technologies" Netscape Navigator and Java. 120 Microsoft argued that it could not be liable under Section 2 unless the plaintiffs established that the middleware technologies would have developed into serious cross-platform threats. 121 The D.C. Circuit disagreed, holding that Microsoft's elimination of "nascent" threats violated Section 2 without requiring proof that, absent its exclusionary conduct, those nascent competitors would have become cross-platform threats. 122 Indeed, as the court opined: "To require that § 2 liability turn on a plaintiff's ability or inability to

¹¹⁴ FTC Hearing Transcript #1, supra note 40, at 149-50.

¹¹⁵ HORIZONTAL MERGER GUIDELINES, *supra* note 64, at § 5.3.

¹¹⁶ *Id.* at § 2.1.5.

¹¹⁷ PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 1128e (3rd ed. 2009) (citing cases).

 $^{^{118}}$ *Id.* at ¶ 701d.

¹¹⁹ *Id*.

¹²⁰ United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

¹²¹ *Id.* at 78.

¹²² *Id.* at 79.

reconstruct the hypothetical marketplace absent a defendant's anticompetitive conduct would only encourage monopolists to take more and earlier anticompetitive action." ¹²³

The FTC and five state attorneys general recently employed Section 2 to address a monopolist's acquisition of a nascent competitor in the Acthar settlement. Acthar—an adrenocorticotropic hormone ("ACTH")—is a specialty drug used to treat infantile spasms and several other serious medical conditions. In Europe, Canada, and other parts of the world, doctors treat patients suffering from these same conditions with Synacthen Depot, a synthetic ACTH drug which is substantially less expensive than Acthar. In the U.S., Acthar is the only ACTH drug; Questcor manufactures Acthar and holds that monopoly. Despite significant uncertainty as whether Synacthen Depot would ultimately receive FDA approval, Questcor viewed that drug as a threat to its U.S. monopoly. In June 2013, Questcor acquired the U.S. rights to Synacthen Depot from Novartis AG, outbidding several other companies.

In the Acthar settlement complaint, the FTC and state attorneys general alleged that the acquisition stifled competition by preventing any other company from using the Synacthen Depot assets to develop a synthetic ACTH drug, thereby preserving Questcor's monopoly and allowing it to maintain extremely high prices for Acthar. Because the complaint relied on Section 2 of the Sherman Act—instead of Clayton Act Section 7—the complaint never alleged that Synacthen Depot was "likely" to clear all regulatory and other hurdles to reaching the market. Despite the uncertainties surrounding Synacthen Depot's potential entry into the market, Questcor's monopoly meant the acquisition could be viewed as exclusionary conduct precluding entry by a nascent competitor. Ultimately, Questcor agreed to a \$100 million settlement and to grant a license to develop Synacthen Depot. 125

V. Potential Legislative Approaches

Although legislation is not within the FTC's purview, these Comments offer a few thoughts below on potential federal legislation geared towards addressing some of the concerns in these Comments.

A. To aid detection of anticompetitive acquisitions of nascent competition, HSR filing requirements could account for duration of existence.

In Parts IV.B and IV.C above, these Comments recommend two methods to aid in identifying potentially anticompetitive technology platform acquisitions that fall below HSR filing requirements: increased coordination between the FTC and state attorneys general and prior notice/prior approval requirements. If these methods fail to adequately identify these acquisitions, legislative reforms to HSR thresholds could solve the problem. For instance, HSR filing requirements could be amended to encompass dominant firms' acquisition of nascent competition. In addition to considering the size of the transaction and the size of the person, the duration of the existence of the person could also enter the equation. There are several ways of effectuating this. One would be to extend filing requirements to all instances where a threshold firm acquires a non-threshold firm that has existed for, e.g., less than five years. Today, if Amazon were to acquire a

¹²⁴ FTC, et al. v. Mallinckrodt Ard Inc., et al., Case No. 1:17-cv-120 EGS (D.D.C. 2017).

¹²³ Id.

¹²⁵ See Press Release, Fed. Trade Comm'n, Mallinckrodt Will Pay \$100 Million to Settle FTC, State Charges It Illegally Maintained its Monopoly of Specialty Drug Used to Treat Infants (Jan. 18, 2017), https://www.ftc.gov/news-events/press-releases/2017/01/mallinckrodt-will-pay-100-million-settle-ftc-state-charges-it.

start-up with less than \$18 million in sales or assets, that transaction would avoid current HSR filing requirements. Under this modification, if the start-up has existed for fewer than five years, the filing requirement would be triggered.

This, of course, would require legislation, but given the frequency with which dominant firms are acquiring nascent competition, 126 there is a benefit derived from such a reform by ensuring competition is not snuffed out in its incipiency.

B. Legislation addressing transparency in the collection and sale of data could facilitate an efficient and competitive market.

As discussed above, the market for consumer data is opaque, and consumer data can make its way from dominant platforms down to data brokers. Transparency in the market for data allows consumers to make informed choices about "free" services and may incentivize companies to compete on privacy. But even more important for purposes of antitrust enforcement, greater transparency in this area will enable economists and other analysists to more accurately evaluate and develop econometrics related to consumer data, which could lead to more robust antitrust analysis.

The 2014 FTC report suggests that Congress consider enacting legislation to enable consumers to learn about the existence and activity of data brokers, access the information about them held by the brokers, or opt out of that collection. This could address the asymmetrical loss of privacy that occurs when consumers are subject to increasingly extensive monitoring without increased public awareness or oversight. The creation of a data broker clearinghouse was recently endorsed by Apple CEO Tim Cook, as one part of comprehensive federal privacy legislation. Such a clearinghouse could not only "enabl[e] consumers to track the transactions that have bundled and sold their data from place to place," but also allow platforms to discover when and how developers or other third-parties may have collected and sold consumer data in violation of their privacy policies. 130

Moving beyond data brokers, legislation could also target the market power of data-opolies by requiring platforms to allow consumers more control over their data. In fact, the Children's Online Privacy Protection Act ("COPPA") already provides consumers with control over data for children under 13.¹³¹ Under COPPA rules, businesses that collect personal information from children under 13 must provide parents the right to review and delete their children's

¹²⁶ Wikipedia, Alphabet, List ofMergers and Acquisitions by https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Alphabet (last visited Apr. 10, 2019); Wikipedia, List ofMergers and Acquisitions byAmazon, https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Amazon (last visited Apr. 10, 2019); Wikipedia, Mergers and Acquisitions ofFacebook. https://en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Facebook (last visited Apr. 10, 2019).

¹²⁷ FED. TRADE COMM'N, *supra* note 9, at 49.

¹²⁸ In fact, Vermont recently passed the country's first law requiring data brokers to register with its Secretary of State. *See* VT. STAT. tit. 9, §§ 2430, 2433, 2446, 2447. The law prohibits the fraudulent acquisition of brokered personal information and requires a minimum data security standard for data brokers, among other requirements. *Id.*

¹²⁹ Tim Cook, *You Deserve Privacy Online. Here's How You Could Actually Get It*, TIME (Jan. 16, 2019), http://time.com/collection/davos-2019/5502591/tim-cook-data-privacy/.

¹³⁰ Id.

¹³¹ 15 U.S.C. §§ 6501-6505; 16 C.F.R. § 312.

information.¹³² Even if deletion is not requested, businesses are only allowed to retain children's personal information "for only as long as is reasonably necessary to fulfill the purpose for which the information was collected"¹³³ (e.g., when a subscription period ends, the child's information must be deleted). These rights could be expanded to all consumers. Allowing consumers to review and optionally delete data could weaken the entrenched market power of incumbent tech platforms by limiting access to historical data. It may also pressure those platforms to offer additional services to incentivize consumers to share valuable data and remain on the platform.

* * *

The State Attorneys General look forward to addressing some of these issues in more detail as the process continues, in particular at the June 12, 2019 Roundtable with State Attorneys General. We thank you for your consideration of our Comments, and we look forward to our ongoing efforts with the FTC.

¹³² 16 C.F.R. § 312.6.

¹³³ 16 C.F.R. § 312.10.

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